

MCB 15 - CURRENT TOPICS IN THE BIOLOGICAL SCIENCES

Spring 2013

Course Description

The focus of this course is on the *Public Understanding of Science*. Using the issues and debate surrounding Vaccines, Genetic Engineering, and Mental Health, our goal is to examine the communication-understanding gap that exists between scientists and the general public.

A related goal is to help you become part of the ‘solution’ rather than part of the ‘problem’ by improving your ability to:

1. Identify and evaluate credible scientific information,
2. Integrate and apply scientific information to ‘real world’ issues,
3. Communicate one’s understanding of science to different audiences.
4. Form ‘good’ hypotheses and ask ‘good’ questions,
5. Read, comprehend, and critique peer-reviewed/scholarly articles,
6. Solve open-ended problems,
7. Recognize patterns, understand models, and formulate the ‘big picture,’
8. Understand the ethical, moral, and social responsibility surrounding scientific knowledge, and
9. Responsibly participate in science/society discourse.

This course will include lectures, guest speakers, readings, popular and scientific media, graded exercises, and your participation in lecture and discussion section.

Instructor

John Matsui, Ph.D.
 Department of Integrative Biology
 2016 Valley Life Sciences Building (VLSB)
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 Office Hours: By Appointment

Graduate Student Instructors

Michelle Beam	Yasmina Mohan
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The ‘Design Team’ - NIH Graduate Fellows and Assistant Research Coordinator*

Catherine Anicama	ca2129@gmail.com	Clinical Psychology
Kristina Kangas	krstnkngs@gmail.com	Reproductive Endocrinology
Susan Luong	xluong@berkeley.edu	Developmental Endocrinology
Phillip (Skip) Skipwith	pskipwith@gmail.com	Evolutionary Biology
Corey Welch, Ph.D.*	coreywelch@berkeley.edu	Evolution and Ecology

Lecture Tu/Th 1-2 PM 2040 VLSB

Topics

1/22	The Course (<i>John Matsui</i>) and Introductions (<i>GSI</i> s and <i>Design Team</i>)
1/24	History of Science and Scientific Literacy (<i>John Matsui</i>)

1/29	Science 101 – Science and the Scientific Method (<i>John Matsui</i>)
1/31	On Being a Scientist (<i>Tyrone Hayes, IB – to be confirmed</i>)
2/5	The Future of Science (<i>Panel - TBD</i>)
2/7	Evolution 101 – A Primer (<i>Corey Welch</i>)
2/12	‘The Gap’ (<i>John Matsui</i>)
2/14	Communicating Across the Gap (<i>Amy Adams, CIRM – to be confirmed</i>)
2/19-3/7	Vaccines (6 lectures) (<i>Michelle Beam and Yasmina Mohan</i>)
3/12-3/21	Genetic Engineering (6 lectures) (<i>Kristina Kangas and Skip Skipwith</i>)
3/25-3/29	SPRING BREAK
4/2-4/4	Genetic Engineering
4/9-4/25	Mental Health (6 lectures) (<i>Catherine Anicama and Susan Luong</i>)
4/24	The Future (<i>John Matsui</i>)
4/26	Evaluation and Open Forum (<i>Design/Teaching Team</i>)

Discussion Sections – *Sections begin meeting the 2nd week of class on Mon. 1/28 & Tues. 1/29.*

M	11-12 PM	215 Dwinelle
M	12-1 PM	215 Dwinelle
Tu	10-11 AM	155 Barrows
Tu	4-5 PM	109 Dwinelle

Resources and Announcements

- We will use bSpace to post announcements, readings, etc. for the course. As soon as we enroll you in the course you will be granted access to the bSpace site.

Enrolling in the Course

- You must enroll in both the lecture and one discussion section.
- To enroll you must fill out a 3x5 card with the requested information including your 1st, 2nd, and 3rd (if possible) section choices.
- By the end of the first week you will know whether you are in course, in which discussion section, and how to add the course using a Course Entry Code (CEC).

Grading

We will discuss grading and each assignment in detail in discussion section and lecture.